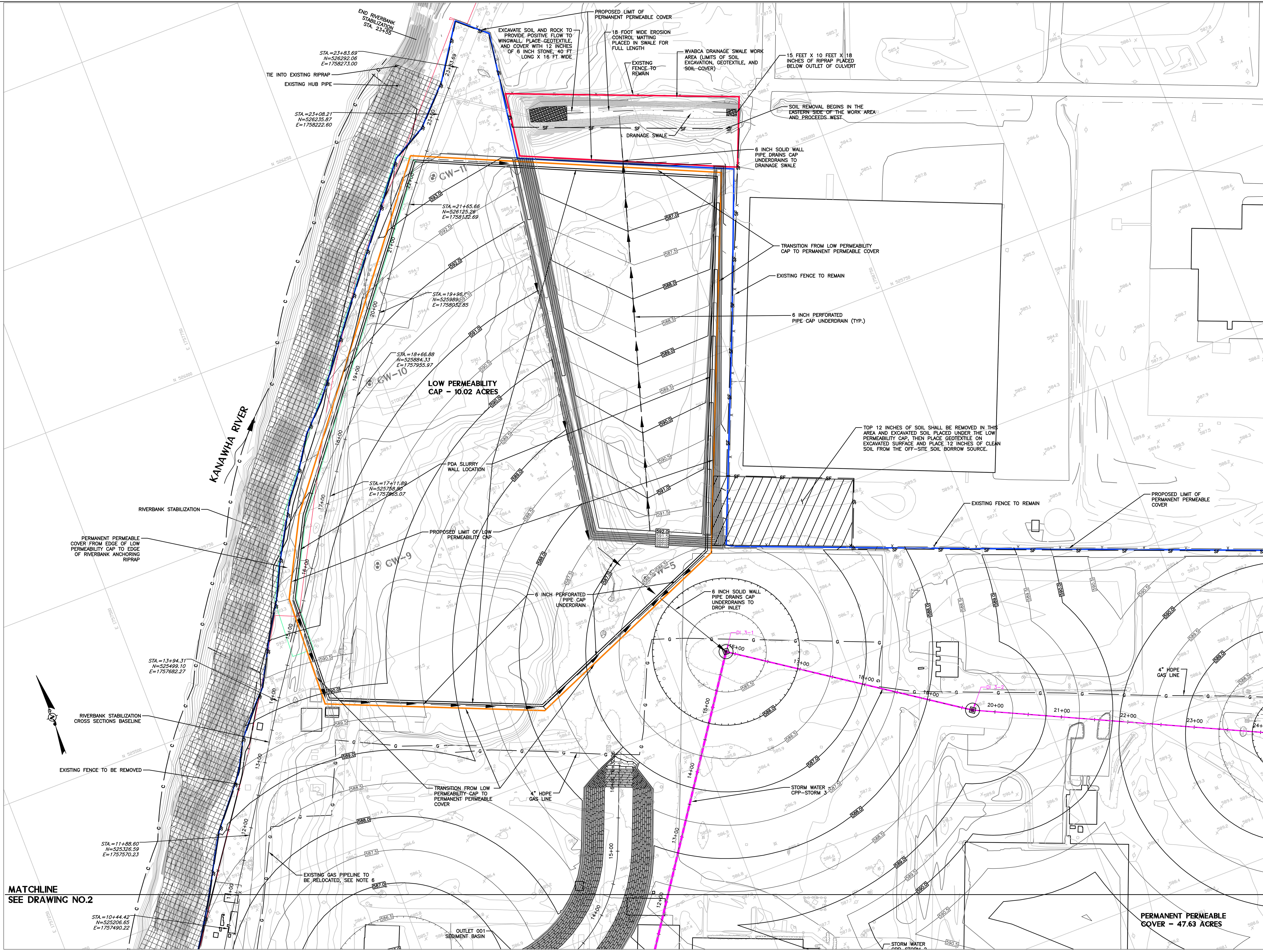

WVABCA DRAINAGE SWALE SOIL COVER NOTES

1. CONTRACTOR SHALL EXCAVATE 18 INCHES OF EXISTING SOIL MATERIAL FROM THE DRAINAGE SWALE WORK AREA. EXCAVATED SOIL SHALL BE TRANSPORTED AND PLACED ON THE WVABCA 3-ACRE WESTERN PARCEL WITHIN THE CONFINES OF THE SOIL-BENTONITE SLURRY WALL. SOIL EXCAVATED FROM THE DRAINAGE SWALE WORK AREA SHALL BE USED TO FILL "LOW AREAS" AT THE LOCATIONS SHOWN ON THE DRAWINGS.
2. CONTRACTOR SHALL TAKE CARE WHEN TRANSPORTING EXCAVATED SOIL FROM DRAINAGE SWALE TO THE AREA INSIDE OF THE SOIL-BENTONITE SLURRY WALL TO MINIMIZE IMPACTS TO THE SLURRY WALL, CLAY CAP AND BERM.
3. UPON EXCAVATION AND REMOVAL OF THE SURFACE SOILS (18-INCH DEPTH), THE CONTRACTOR SHALL COVER THE DRAINAGE SWALE WORK AREA WITH ONE LAYER OF AN 8 OUNCE/SQUARE YARD NONWOVEN GEOTEXTILE. GEOTEXTILE SHALL BE PLACED OVER THE SURFACE PREPARED TO BE AS SMOOTH AS POSSIBLE. GEOTEXTILE SHALL BE LAID AS WRINKLE FREE AS POSSIBLE. INDIVIDUAL PANELS OF GEOTEXTILE SHALL BE OVERLAPPED A MINIMUM OF 2 INCHES AND SEWN. GEOTEXTILE SHALL BE A NONWOVEN STYLE ENGINEERED FABRIC SUITABLE FOR SEPARATION AND SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES.

PARAMETER	TEST METHOD	VALUE (MARV)
WEIGHT (TYPICAL)	ASTM D5261	8.0 OZ/YD^2
GRAB TENSILE	ASTM D4632	205 LBS
GRAB ELONGATION	ASTM D4632	50%
AOS	ASTM D4751	80 U.S. SIEVE
TRAPEZOIDAL TEAR	ASTM D4533	85 LBS

4. CONTRACTOR SHALL TEMPORARILY ANCHOR THE GEOTEXTILE USING SANDBAGS OR OTHER METHOD TO AVOID DISPLACEMENT OF THE GEOTEXTILE BY WIND, WATER, OR OTHER FORCES.
5. CONTRACTOR SHALL SPREAD AN 18-INCH THICK LIFT OF SOIL (SOIL COVER) OVER THE GEOTEXTILE. SOIL SHALL BE DUMPED, SPREAD, AND PLACED IN SUCH A MANNER TO AVOID DAMAGE TO THE UNDERLYING GEOTEXTILE LAYER. SOIL SHALL BE "CLEAN" SOIL FROM THE CONTRACTOR'S OFF-SITE BORROW AREA. SOIL SHALL BE DETERMINED TO BE "CLEAN" BASED ON ANALYTICAL TESTING WITH THE RESULTS REVIEWED AND APPROVED BY SOLUTIA INC. PRIOR TO USE AT THE SITE. SOIL SHALL MEET THE REQUIREMENTS OF SECTION 1400 – BORROW SOIL AS CONTAINED IN TECHNICAL SPECIFICATIONS NITRO, WEST VIRGINIA RCRA INTERIM MEASURES, SOIL-BENTONITE SLURRY WALL INSTALLATION DATED FEBRUARY 11, 2011.
6. THE SURFACE OF THE 18-INCH THICK SOIL LAYER SHALL BE REVEGETATED IN ACCORDANCE WITH SECTION 1300 – SEEDING AND MULCHING AS CONTAINED IN TECHNICAL SPECIFICATIONS, NITRO, WEST VIRGINIA RCRA INTERIM MEASURES, SOIL-BENTONITE SLURRY WALL INSTALLATION DATED FEBRUARY 11, 2011.
7. THE CONTRACTOR SHALL PLACE EROSION CONTROL MATTING (ECM) IN THE DRAINAGE SWALE ALONG THE FLOWPATH OF SURFACE RUNOFF. THE DRAWING SHOWS THE ANTICIPATED ALIGNMENT AND A TYPICAL SECTION OF THE SWALE AND ECM LINING. ECM SHALL BE ANCHORED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS INCLUDING STAPLES AND ANCHOR TRENCHES. EROSION CONTROL MATTING SHALL BE NORTH AMERICAN GREEN P300 OR ENGINEER APPROVED EQUIVALENT.

1. PROPOSED CONTOURS SHOWN ON THIS DRAWING REPRESENT THE TOP OF THE GENERAL SOIL FILL LAYER (UNLESS INDICATED OTHERWISE). THE TOP OF THE GENERAL SOIL FILL LAYER REPRESENTS THE PROPOSED SUBGRADE FOR INSTALLING THE LOW PERMEABILITY CAP AND LOW PERMEABILITY COVER GEOSYNTHETIC LAYERS. THE GENERAL SOIL FILL LAYER IN LOW PERMEABILITY CAP AND LOW PERMEABILITY COVER AREAS SHALL BE BROUGHT TO GRADE BY CUTTING AND FILLING AS SHOWN. FILL REQUIRED TO OBTAIN THESE ELEVATIONS WILL BE OBTAINED FROM EXCAVATIONS MADE FOR THE SEDIMENT BASIN, RIVERBANK ARMORING, STORM WATER PIPING AND DROP INLETS, DRAINAGE SWALES AND CHANNELS, AND OTHER EXCAVATIONS REQUIRED ON THE SITE. THE CONTRACTOR SHALL COMPLETE EXCAVATIONS INDICATED ON THE DRAWINGS AND EXCAVATED MATERIALS FROM THE SITE SHALL BE PLACED WITHIN THE GENERAL SOIL FILL LAYER WITHIN THE LOW PERMEABILITY CAP AREAS. IF INSUFFICIENT VOLUME EXISTS TO ACCOMMODATE EXCAVATED MATERIALS FROM THE NITRO PROPERTY WITHIN THE LOW PERMEABILITY CAP AREAS, THEN EXCAVATED MATERIALS FROM THE NITRO PROPERTY MAY BE PLACED WITHIN THE GENERAL SOIL FILL LAYER WITHIN THE LOW PERMEABILITY COVER AREA. AFTER EXCAVATION AND FILL ARE COMPLETED IN THE LOW PERMEABILITY CAP AND LOW PERMEABILITY COVER AREAS, THE CONTRACTOR CAN COMPLETE WORK IN THE AREAS TO RECEIVE THE PERMANENT PERMEABLE COVER. IN AREAS REQUIRING EXCAVATION, EXCAVATION SHALL BE COMPLETED PRIOR TO PLACING THE GEOTEXTILE SEPARATION LAYER ON THE PREPARED SUBGRADE. WHERE FILL IS REQUIRED (GENERAL SOIL FILL), THE GEOTEXTILE SEPARATION LAYER SHALL BE PLACED ON THE PREPARED EXISTING GROUND SURFACE PRIOR TO PLACING CLEAN SOIL FROM THE OFF-SITE SOIL BORROW SOURCE.
2. EROSION AND SEDIMENT CONTROL MEASURES INCLUDING SILT FENCE, SUPER SILT FENCE, STABILIZED CONSTRUCTION ENTRANCES, AND SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO COMMENCING EARTHWORK.
3. REFER TO THE TECHNICAL SPECIFICATIONS FOR THE SUGGESTED CONSTRUCTION SEQUENCE AND FOR ADDITIONAL REQUIREMENTS FOR THE CAPS AND COVERS INSTALLATION WORK.
4. BASE TOPOGRAPHIC MAPPING SHOWN ON THIS DRAWING WAS GENERATED FROM AERIAL PHOTOGRAPHY DATED SEPTEMBER 24, 2003. AFTER COMPLETION OF THE TOPOGRAPHIC MAPPING, ACTIVITIES WERE COMPLETED AT THE SITE THAT LIKELY HAVE IMPACTED GROUND ELEVATIONS AND STRUCTURES SHOWN ON THE MAPPING. THESE ACTIVITIES INCLUDED:
   a. DEMOLITION OF ABOVE GRADE STRUCTURES FROM THE FLEXSYS AMERICA, L.P. MANUFACTURING PLANT. THIS INCLUDED BUILDINGS, WALLS, UTILITIES AND ALL OTHER ABOVEGROUND ITEMS. FOUNDATIONS, FLOOR SLABS, AND BURIED UTILITIES WERE NOT REMOVED. THE BASE TOPOGRAPHIC MAPPING WAS FIELD EDITED AT THE LOCATIONS OF THE SIGNIFICANT BUILDINGS TO CORRECT EXISTING FLOOR SLAB ELEVATIONS.
   b. CRUSHED STONE SURFACING WAS ADDED IN SELECT AREAS TO PROMOTE A STABILIZED SURFACE AND LESSEN ADVERSE IMPACTS FROM SITE RUNOFF.
   c. SLURRY WALLS WERE CONSTRUCTED IN THE AREAS OF THE PROPOSED LOW PERMEABILITY CAPS. CONSTRUCTION OF THE SLURRY WALLS HAS RESULTED IN CHANGED CONDITIONS AT THE NITRO PROPERTY. CHANGES INCLUDE:
   i. A SOIL BENTONITE SLURRY WALL WAS INSTALLED FROM THE EXISTING GROUND SURFACE (AND/OR PREPARED WORK PLATFORM) TO THE TOP OF BEDROCK (DEPTHS RANGING FROM APPROXIMATELY 50 FEET TO 60 FEET).
   ii. THE GROUND ELEVATIONS ALONG THE ALIGNMENT OF THE SLURRY WALL HAVE BEEN ALTERED SOMEWHAT FROM THE ELEVATIONS INDICATED BY THE BASE TOPOGRAPHIC MAPPING FROM INSTALLATION OF THE WORK PLATFORM, GENERATION AND PLACEMENT OF EXCESS MATERIALS EXCAVATED DURING UTILITY AND OBSTRUCTION CLEARING, AND EXCESS SOIL/BENTONITE MATERIALS FROM SLURRY WALL CONSTRUCTION.
   iii. OTHER MINOR DISTURBANCE TO AREAS ON THE NITRO PROPERTY MAY HAVE OCCURRED IN CONTRACTOR-SUPPORT AREAS ASSOCIATED WITH SLURRY WALL INSTALLATION.
5. EXISTING FENCES ALONG THE PERIMETER OF THE NITRO PROPERTY (SOUTH, EAST, AND NORTH LINES) SHALL REMAIN IN PLACE DURING CAPS AND COVERS CONSTRUCTION ACTIVITIES. THE EXISTING FENCE ALONG THE TOP OF THE RIVERBANK IN THE FORMER MANUFACTURING AREA SHALL BE REMOVED AND DISPOSED ON-SITE UNDER THE LOW PERMEABILITY CAP AND LOW PERMEABILITY COVER.
6. GAS PIPELINES OWNED BY TEA VEE OIL & GAS CROSS THE NITRO PROPERTY AND WILL REQUIRE RELOCATION AS PART OF THE CAPS AND COVERS CONSTRUCTION.
7. REFER TO RIVERBANK CROSS SECTIONS FOR REQUIRED EXCAVATION AND DIMENSIONS OF RIVERBANK ARMORING RIPRAP AND GEOTEXTILE. THIS PLAN IS NOT INTENDED TO SHOW RIVERBANK GRADING AND ARMORING WORK.

LEGEND

- PROPOSED DROP INLET
- PROPOSED STORM DRAIN LINE (CPP)
- PROPOSED LIMIT OF PERMANENT PERMEABLE COVER
- PROPOSED LIMIT OF LOW PERMEABILITY COVER
- PROPOSED LIMIT OF LOW PERMEABILITY CAP
- PROPOSED CAP SYSTEM UNDERDRAIN
- 590.0 — PROPOSED GENERAL FILL SURFACE GRADE OR SUBGRADE
- X — EXISTING FENCE
- G — EXISTING GAS PIPELINE
- GW-2 — EXISTING GROUNDWATER MONITORING WELL
- PROPOSED RIVERBANK ARMORING RIPRAP

GRAPHIC SCALE

60 30 0 60 120

1 INCH = 60 FEET

MAPPING REFERENCE:
BASE MAPPING SHOWN ON THIS DRAWING WAS PREPARED BY PHOTOSCIENCE, INC. BASED ON AERIAL PHOTOGRAPHY DATED SEPTEMBER 24, 2003.

PRELIMINARY - FOR REGULATORY REVIEW

No.	Date	Revision

-DESIGN
CAD File No.
RSB
Drawn
DMK
Checked
Approved
NOTED
Scale:
DEC. 2011
Date:
01-0081-700C
Project No.

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POTESTA

Client
SOLUTIA, INC.
ST. LOUIS, MISSOURI

Title
GENERAL FILL SURFACE SITE PLAN
RCRA INTERIM MEASURES
CAPS AND COVERS CONTRACT

3
Drawing No.

XREF Files: 01-0081-700C-BASE
IMAGE Files:
File: S:\C3D-Projects\01-0081-INSTITUTE\PHASE 700C\01-0081-700C-MFG-DESIGN.dwg
Plot Date/Time: Dec 12, 2011 - 4:00pm
Plotted By: MBSankoff